

REMARKS

The Examiner has rejected main claims 21 and 29 as being obvious based on Adams in view of Hamlin. The applicant respectfully traverses this rejection.

Adams utilizes a QAM modulator array 70 which operates with a series of subscriber terminals connected to nodes 26. A plurality of identical media servers 72 are connected through the modular array 70 to a fibre transport 3 for distribution to the nodes 26.

There are a number of differences between Adams' system and the present invention. For example, in Adams, a specific modulator (channel) in the modulator array 70 is selected to receive a specific media asset input from a specific media server 72 (column 7, lines 52-56). But the modulated media signals are combined – each in its own frequency band – for transmission to the subscriber (column 11, lines 53-55). The subscriber can then receive that particular media input by tuning the set top box to the selected channel (column 7, lines 56-59). This leads to a number of differences between Adams and the invention recited in the present claims in both structure and operation, including that **Adams does not transmit a single channel to a specific communications interface** as in the present invention, in which the receiving device receives a single channel from the redistributor, which allows the system of the invention to be used over twisted pair telephone wire.

A detailed explanation of some of the differences follows:

1. Contrary to the Examiner's assertion, the server does not control the output channel selection. The output channel selection is controlled by the user switching to the desired channel (frequency) on their set top box.
2. The combined signal outputs from all media servers 72 assigned to any particular node group are output to the node 26 (column 8, lines 3-13). Adams must therefore use a **high bandwidth transmission medium**, such as coaxial cable or optical fibre, to distribute the signal. The signal is too data-heavy to be transmitted over twisted pair telephone lines, because each signal sent to a particular node 26 contains a plurality of channels. The present invention provides a significant advantage in this regard.

3. Adams does not have a processor for processing the signals for switching. He does not need one. Each of Adams media servers 72 is identical, and therefore each signal output to the combiner is in exactly the same format; there is no need for a processor to process the signals to a common format for switching. The Examiner has cited a passage at column 9, lines 59-62 to support this statement but, with respect, that passage refers to the connection management agent illustrated in Figure 7, which is a switching routine and not a processor.

4. The Examiner asserts that the switching device is controlled by "the server" responsive to one or more control signals input into the communications interface. This is not the case. The switching device is controlled by the connection manager in each of the multiple media servers 72 (column 9, line 66 to column 10, line 8). Adams does not describe any logical connection between the connection managers, but implies that a given server is pre-assigned to a node, and thus the head end must massively duplicate signals that are sent to the distribution hubs. Thus, there is a huge overhead in the signals sent downstream. This is easy to do using a high bandwidth medium such as fibre, but *impossible* with twisted pair telephone wire which cannot handle that bandwidth. As Adams describes, to receive the selected signal the user must select a channel (frequency) on their set top box in order to differentiate the selected signal from the other modulated signals with which it has been combined (column 7, lines 56-59, Figure 7). This is a critical difference: as noted above, **the switch does not route "the channel selection" to the user, but rather a signal containing a number of channels including the channel selected by the user.** In the system of the present invention this redundancy is eliminated; the server subsystem is optimized to transmit only the precise data request made by end users, which is a completely different concept.

5. As the Examiner has indicated, Adams does not disclose a system with a demodulator for demodulating the input signals. It is unnecessary in Adams to use a demodulator to combine the separate inputs onto a common bus. The input signals are distributed in a composite signal containing multiple channels via the QAM array (which the Examiner has already designated as the switching device). There would accordingly be no motivation to combine the demodulator of Hamlin into the system of Adams.

Accordingly, Adams is a completely different system. He is not concerned with combining input signals of different types, with commensurate processing and demodulation as in the present invention.

Moreover, as noted above, Adams does not transmit a single channel to a specific communications interface, as in the present invention where the user does not have to select a channel on the set top box, which receives a single channel from the redistributor. This actually allows the system of the present invention to be used over twisted pair telephone wires, whereas Adams is constrained to conventional multimedia distribution media such as optical fibres and broadband signal carriers (e.g. coaxial cable) because of his highly data-intensive transmissions to the subscribers.

In short, Adams is a completely different system from the present invention. The present invention, as claimed, demodulates a plurality of input signals and utilizes a server to control a single output channel selection of the input signals responsive to subscriber control signals. The bandwidth required for this system is a small fraction of the bandwidth required to operate Adams' system, and the applicant submits that these differences in the structure and operation of the present invention and the significant advantages that they provide patentably distinguish the invention over the prior art.

Main claims 21 and 29 each recite (either as structure or as method steps) the server, the modulation of the input signals, processing of the input signals to a format suitable for switching, a single server controlling the output channel selection, and the selection of a single processed signal for redistribution to a specific communications interface. The applicant accordingly submits that the claims as present written patentably distinguish the invention over the prior art.

A Petition for an Extension of Time requesting an extension of one month for filing the subject response is attached. The Commissioner is authorized to charge any deficiency or credit any overpayment in the fees for same to our Deposit Account No. 500663.

Favourable reconsideration and allowance of the subject application are respectfully requested.

Executed at Toronto, Ontario, Canada, on March 22, 2007.

ROSS A. JEFFERY



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Att: Petition for Extension of Time

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: 09/928,332

Filing Date: August 14, 2001

Examiner: Justin E. Shepard

Applicant: Ross A. Jeffery

Attorney's Ref: 1595-17/MBE

Title: Audio/Video and Data Signal Redistribution System

Commissioner of Patents  
U.S. Patent and Trademark Office  
Alexandria, VA 22313  
U.S.A.

Dear Sir:

**PETITION FOR EXTENSION OF TIME**

The applicant requests that the time for taking action in this case be extended pursuant to 37 CFR §1.135(a) for:

☒ (X) one month                      ☐ ( ) three months  
☐ ( ) two months                    ☐ ( ) four months

The fee set in 37 CFR §1.17 for the extension of time is \$1,020.00.

(X) Applicant is a small entity entitled to pay reduced fees in this application.

(X) Fee of **\$60.00** is to be charged to our Deposit Account No. 500663.

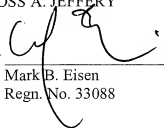
(X) The Commissioner is authorized to charge any deficiency or credit any overpayment in the above fees to our Deposit Account No. 500663.

Also enclosed is a:

☒ (X) Response              ☐ ( ) Notice of Appeal              ☐ ( ) Appeal Brief  
☐ ( ) Other:

Date: March 22, 2007

ROSS A. JEFFERY

by   
Mark B. Eisen  
Regn. No. 33088